

WHAT IS CLAIMED IS:

1. A fuse module comprising:

a plurality of fuses each having a fusing element, and terminal sections at opposite ends of the fusing element; and

a fuse casing for accommodating all of these plurality of fuses, the fuse casing being made of an insulating material and formed with external terminal insertion holes.

2. A fuse module according to claim 1, wherein one and the other of the terminal sections of each fuse accommodated in the fuse casing function as an input terminal and an output terminal, respectively, and the respective output terminals are so arranged as to be electrically connectable with external terminals of busbars via a first group of external terminal insertion holes, and the respective input terminals are so arranged as to be electrically connectable with external terminals of the busbars via a second group of external terminal insertion holes.

3. A fuse module according to claim 2, wherein the respective fuses are plate-shaped and are vertically mounted in fuse mount holes individually provided in a base portion of the fuse casing.

4. A fuse module according to claim 3, wherein each

fuse mount hole is formed such that a pair of terminal mounting portions in which the two terminal sections of the corresponding fuse are mounted and a fusing element mounting portion in which the fusing element of the corresponding fuse is mounted are horizontally aligned, and the width of the two terminal mounting portions is at least substantially equal to the thickness of the fuse.

5. A fuse module according to claim 4, wherein spacing between the two terminal sections of each fuse is constant among the respective fuses.

6. A fuse module according to claim 5, wherein the width of the fusing element mounting portions is larger than the thickness of the fuses.

7. A fuse module according to claim 6, wherein the input terminals are arrayed in the same row and an electrically conductive shorting member is further provided to simultaneously engage a plurality of input terminals.

8. A fuse module according to claim 7, wherein the shorting member includes a plurality of comb-shaped press-contact blades for engaging the plurality of input terminals while holding them from opposite sides.

9. A fuse module according to claim 8, wherein the plurality of comb-shaped press-contact blades are provided at the same intervals.

10. A fuse module according to claim 9, wherein the input terminals are arranged to face the outer side of the fuse casing, and the shorting member is inserted into the fuse casing from outside.

11. A fuse module according to claim 1, further comprising a plurality of connection terminals including first connecting portions to be connected with the respective terminal sections and second connecting portions to be connected with external terminals, wherein

the fuse casing is formed with a plurality of connection terminal holding portions for holding the plurality of connection terminals in a state that at least the first connecting portions are exposed; and

the terminal sections of the fuses are connected with the exposed first connecting portions; and the second connecting portions are so arranged as to be electrically connectable with external terminals of busbars via the external terminal insertion holes.

12. A fuse module according to claim 11, wherein the respective fuses are arrayed at specified intervals in a row direction substantially normal to a spaced-apart direction of the terminal sections at the opposite sides of the respective fuses.

13. A fuse module according to claim 12, wherein the respective connection terminals to be connected with the terminal sections at the opposite sides of the fuses are held in the fuse casing such that the first connecting portions thereof are arrayed in the row direction in which the fuses are arrayed, and are located substantially on the same plane.

14. A fuse module according to claim 13, wherein spacing between the terminal sections at the opposite sides of each fuse is set equal among the respective fuses and spacing between the first connecting portions to be connected with the opposite terminal sections is also set equal.

15. A fuse module according to claim 14, wherein the connection terminals are arrayed in the row direction while being separated into an input side and an output side, and each fuse is electrically connected between a suitable input-side connection terminal and a suitable output-side connection terminal.

16. A fuse module according to claim 15, wherein the first connecting portions of at least part of the input-side connection terminals extend in the row direction and are connected with the first connecting portions of a plurality of output-side connection terminals via the fuses.

17. A fuse module according to claim 16, wherein all the second connecting portions project in the same direction.

18. A fuse module according to claim 17, wherein the external terminals are connected from outside with the second connecting portion via external terminal insertion holes formed in the fuse casing.

19. A fuse module according to claim 18, wherein the respective connection terminals are mounted by inserting the second connecting portions into connecting portion mount holes formed in the fuse casing.

20. A fuse module according to claim 19, wherein the fuse casing includes an opening through which the connection terminals and the fuses are mounted, and a cover detachably mountable to close the opening.